

REMARKS/ARGUMENTS

This Reply is filed in response to the first Official Action for the second request for continued examination (RCE) of the present application. Initially, Applicant appreciates the new Examiner taking the time to conduct a telephone interview with Applicant's undersigned attorney regarding the first Official Action. The first Official Action no longer rejects Claims 1-21 under 35 U.S.C. § 112, second paragraph. Nonetheless, the first Official Action continues to reject Claims 1-21 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,991,528 to Taylor et al. As explained during the telephone interview and below, however, Applicant again respectfully submits that Claims 1-21 are patentably distinct from the Taylor patent. Accordingly, Applicant traverses the rejection of Claims 1-21 as being anticipated by the Taylor patent. In light of the remarks presented herein, Applicant respectfully requests reconsideration and allowance of all of the pending claims of the present application.

As previously explained, the Taylor patent provides an expert manufacturing system that generates a manufacturing plan for producing a part in an automated manufacturing system. The expert manufacturing system generates a multipurpose manufacturing geometry definitions file (MGDF). The MGDF can then be used by an expert manufacturing system to generate the manufacturing plan in the form of a neutral source code file. The neutral source code can then be converted to machine-specific program code directly executable by a device controller, such as a logic controller or motion controller. The expert manufacturing system can also be used to generate a drawing of the part, as well as to simulate the manufacturing plan for producing the part.

As recited, independent Claims 1, 8 and 15 provide a method, system and computer program product for controlling the operation of one or more motion devices by directly implementing electronic simulation information, where the motion device(s) comprise one or more controllable element. The method of independent Claim 1, and similarly the system and computer program product of independent Claims 8 and 15, includes extracting process information from the electronic simulation information. In this regard, the electronic simulation information is representative of information regarding the motion device(s), and is further representative of information regarding the object(s) when the motion device(s) are configured to

operate on one or more objects. Also, the electronic simulation information comprises information that has been configured for simulating operation of the motion device(s) produced by a set of operation information.

As further recited by the claimed invention, the process information can be formatted into neutral process information, where the neutral process information is in a format independent of a format of the electronic simulation information. The neutral process information can then be interpreted into operation information for each of the controllable element(s) of the motion device(s), and as such, the operation information depends on a type of the motion device(s). After interpreting the process information into operation information, the operation information can be distributed to the controllable element(s) to thereby control the operation of the motion device(s).

As previously explained, although the Taylor patent and the claimed invention are both directed to manufacturing systems, the claimed invention is patentably distinct from the system disclosed by the Taylor patent. More particularly, in contrast to independent Claims 1, 8 and 15, the Taylor patent does not teach or suggest electronic simulation information that has been configured for simulating operation of motion device(s), where process information can be extracted from the electronic simulation, formatted, interpreted and distributed as operation information to control motion device(s).

In response to Applicant's assertions with respect to the Taylor patent, the Official Action cites column 6, line 66 – column 7, line 12, and column 8, line 65 – column 9, line 61, of the Taylor patent as disclosing this feature of the claimed invention. Official Action of October 25, 2005, page 7. To the contrary, however, Applicant respectfully submits that the cited passages of the Taylor patent do not support the position taken by the Official Action. In this regard, while column 6, line 66 – column 7, line 12 of the Taylor patent describes the manufacturing geometry definitions file (MGDF) and the data contained therein, nowhere does the cited passage explain that the MGDF has been configured for simulating operation of motion device(s), similar to the electronic simulation information of the claimed invention.

The other cited passage of the Taylor patent, column 8, line 65 – column 9, line 61, does disclose simulating manufacturing processes included in a manufacturing plan. As disclosed by

the Taylor patent, however, the simulation is produced from motion data files generated by converting neutral source code, and not from the MGDF. In this regard, presume for the sake of argument (although expressly not admitted) that the Official Action accurately cited portions of the Taylor patent cited as corresponding to extracting process information, formatting, interpreting and distributing the process information. In accordance with such an interpretation, the Taylor patent discloses that information is extracted from the MGDF, formatted into neutral process information, interpreted into operation information and distributed to controllable element(s). In parallel with interpreting neutral process information (or neutral source code as disclosed by Taylor) into operation information and distributing the operation information to controllable element(s), the Taylor patent discloses converting the neutral source code into motion data files that can be used to simulate operation of device controllers. Thus, in lieu of beginning with simulation information (configured for simulating operation of motion device(s)) that is processed into operation information, as in the claimed invention, the Taylor system begins with data that, in parallel, is processed into operation information and simulation information. In other terms, whereas the claimed invention requires information configured for simulation to produce operation information, the Taylor patent does not require such information since any similar simulation information is generated in parallel with operation information.

More particularly, as previously explained, the Taylor patent explicitly discloses and illustrates in FIG. 2 (reproduced below) an expert system generates, from a MGDF **80**, a manufacturing plan in the form of a process data file **104**. Motion/process data generation programs **110** convert neutral source code in the process data file to code, such as NC/CNC motion data, executable by device controllers, where the conversion creates code for each device controller. In addition and in parallel, the motion/process data generation programs may convert the neutral source code into motion data files **114** for each device controller, where the motion data files are thereafter passed to a motion/process verification program **120** for simulating operation of the device controllers. Taylor Patent, col. 8, ll. 17-55.

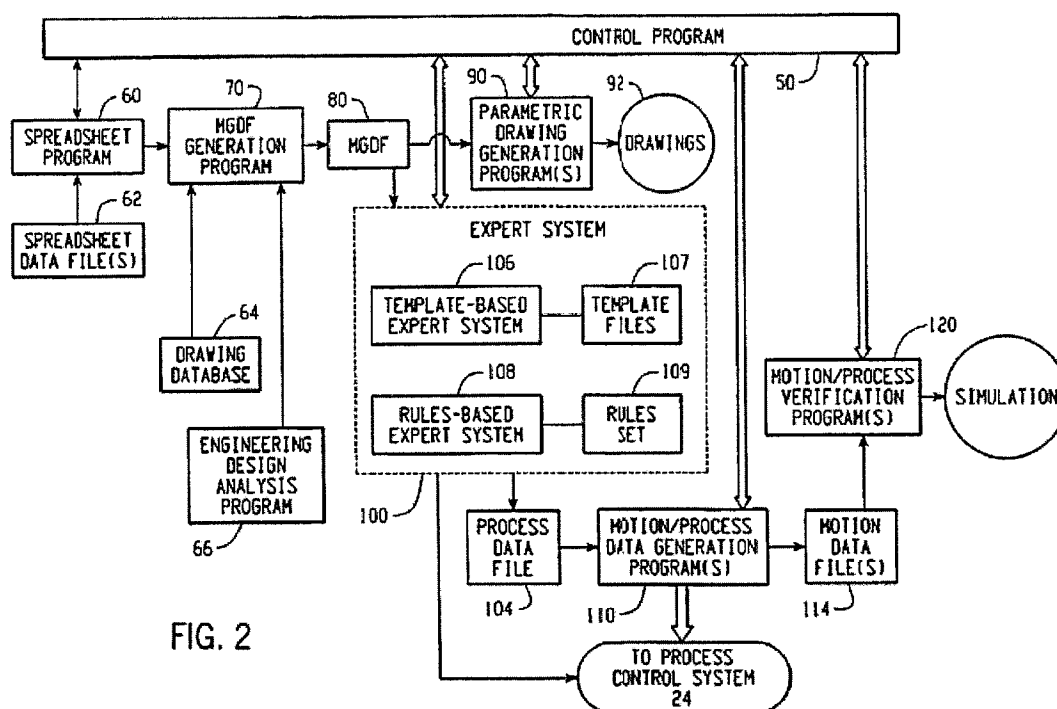


FIG. 2

Again, consider for the sake of argument (again expressly not admitting) that the motion/process data generation programs **110** convert neutral source code to NC/CNC motion data that corresponds to the recited operation information for controlling the operation of device controllers. Also consider for the sake of argument that the motion/process data generation programs **110** also convert neutral source code to motion data files **114** that correspond to the recited electronic simulation information having been configured for simulating operation of the device controllers. As can be clearly seen, then, the Taylor patent discloses that the motion/process data generation programs generate operation information in parallel with electronic simulation information, and accordingly, the operation information is not generated based on the electronic simulation information. In contrast, in accordance with the claimed invention, the operation information is generated through a number of steps beginning with electronic simulation information, and thus, the operation information is generated based on the electronic simulation information.

Applicant therefore respectfully submits that independent Claims 1, 8 and 15, and by dependency Claims 2-7, 8-14 and 16-21, is patentably distinct from the Taylor patent. And as

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such, Applicant further respectfully submits that the rejection of Claims 1-21, under 35 U.S.C. 102(b) as being anticipated by the Taylor patent, is overcome.

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CONCLUSION

In view of the remarks presented above, Applicant submits that the present application is in condition for allowance. As such, the issuance of a Notice of Allowance is therefore respectfully requested. In order to expedite the examination of the present application, the Examiner is encouraged to contact Applicant's undersigned attorney in order to resolve any remaining issues.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



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